



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/072,452	02/08/2002	John C.K. Sham	074319-9013-00	1841
23409	7590	04/19/2005	EXAMINER	
MICHAEL BEST & FRIEDRICH, LLP			CHIN, BRAD Y	
100 E WISCONSIN AVENUE			ART UNIT	PAPER NUMBER
MILWAUKEE, WI 53202			1744	

DATE MAILED: 04/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/072,452	SHAM, JOHN C.K.
	Examiner Brad Y. Chin	Art Unit 1744

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 08 February 2002, 30 February 2002.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-31 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 08 February 2002 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____. |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____. | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: _____. |

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: particulate matter 54, rectangular recess 134, and first flange 240. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the examiner does not accept the changes, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.
2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 108, 230, and 284. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the examiner does not accept the changes, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

3. The abstract of the disclosure is objected to because the language of the abstract is grammatically improper. Examiner suggests amending the abstract as follows: For lines 5-7 – “Preferably, ozone is employed as the sanitizing agent. Ozone is created and neutralized by an ozone generator and an ozone neutralizer and is moved with a fan through the various components of the article sanitation device.” Correction is required. See MPEP § 608.01(b).

4. The disclosure is objected to because of the following informalities:

On page 3 of the specification, line 19, the specification should be amended to – “mailbox capable of decontaminating mail placed therein.”

On page 12, lines 20 and 21; page 13, lines 2, 6, 8, and 16; Applicant should amend the wording to “housing 56” for consistency in the specification and with Figures 3 and 4.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-4, 24-26, and 28 are rejected under 35 U.S.C. 102(e) as being anticipated by Megerle [U.S. Patent Publication No. 2004/0024278].

Megerle teaches an article sanitation device comprising: a container defining an inner chamber and including an inlet and an outlet (See Figure 4; See Specification, p. 6, [0077] and p. 3, [0050] – rotating cage 90 defining an inner chamber where contaminated mail is inserted and including an inlet and an outlet to allow an air flow across the mail to entrain particles in or on the mail articles); a motor operable to move the container (See Figure 4; See Specification, p. 6, [0077] – rotating cage 90 is mounted for rotation on an axle 108 which may be attached to a motor, and supports 110 hold the axle and allow it to rotate); a duct in fluid communication with the inlet and the outlet (See Figure 1 – air inlet duct 86 and air outlet duct 88 for the air recirculation system that is selectively connected to the air inlet port 78; See Figure 4 – air inlet 94 and air outlet 96); a fan operable to circulate fluid along a flow path that extends through the inner chamber and the duct (See Specification, p. 4, [0059] – a gas flow can be provided, such as by pump or fan to circulate the gas through the chamber 11 including through the mail containers until the bio-hazardous material has been neutralized); an ozone generator operable to provide ozone to the inner chamber (See Specification, p. 3, [0051] – gas generator 18 having a pressure gauge 19 is provided to generate or otherwise supply a quantity of gas that neutralizes hazardous material such as anthrax; See Specification, p. 2, [0030] – the chamber...is then filled with chlorine dioxide, ozone, or any of the other possible chemicals that will kill pathogens, but not harm mail or similar articles); an ozone neutralizer operable to remove ozone from the inner chamber (See Specification, p. 3, [0050] – air may be removed to a scrubber to clean the air before its release; See Specification, p. 4, [0052] – scrubber 30 that removes the chlorine dioxide gas – or ozone); and a filter element positioned to remove particulate matter from the fluid in the flow path, the ozone and the filter element cooperating to substantially destroy biological contaminates in the inner chamber and remove the biological contaminates and particulate matter from the flow path (See Specification, p. 4, [0052] –

Art Unit: 1744

container 12 is selectively exhausted via first filter 22 and a second filter 24 through a selectively controlled valve 26. The valve 26 is connected to a scavenge vacuum pump 28 and to a scrubber 30 that removes the chlorine gas – or ozone).

Regarding claim 2, Megerle teaches the article sanitation device of claim 2, wherein the ozone generator supplies ozone to the flow path upstream of the inlet (See Figure 1 – gas generator 18 supplies chlorine dioxide, or ozone as described in the specification, p. 4, [0030], to the flow path upstream of the inlet to chamber 11).

Regarding claim 3, Megerle teaches the article sanitation device of claim 3, wherein the ozone neutralizer removes ozone from the flow path downstream of the outlet (See Figure 1 – scrubber 30 removes chlorine dioxide, or ozone as described in the specification, p. 4, [0030], from the flow path downstream of the outlet).

Regarding claim 4, Megerle teaches the article sanitation device of claim 4, wherein the filter element is in the flow path between the inner chamber and the ozone neutralizer (See Figure 1 – first filter 22 and second filter 24 are in the flow path between the inner chamber 11 and the scrubber 30).

Regarding claim 24, Megerle teaches a method for sanitizing an article comprising: providing a container defining an inner chamber and having a selectively closable opening (See Figure 2; See Specification, p. 3, [0047] – the article sanitation device of Megerle including rotating cage 90 with an inner chamber defined within for receiving contaminated mail to be sterilized and a lid or cover 14 that can be selectively opened and closed as desired over the access opening in container 12, which when closed forms a gas-tight closure); inserting an article to be sanitized into the inner chamber (See Figure 2; Load Mail, Step 44); closing the access opening (See Specification, p. 4, [0056] – container 12 is sealed closed); generating a flow of fluid through the inner chamber (See Specification, p. 4, [0056 – air stream is provided to

Art Unit: 1744

entrain particles which are in or on the mail into the air stream in step 40); moving the container to agitate the article in the inner chamber (See Specification, p. 6, [0077] – mail is placed into the cage 90 and the cage is rotated); and adding ozone to the flow of fluid to substantially destroy biological contaminates in the inner chamber (See Figure 2; See Specification, p. 4, [0056-0059] – upon closing of the access opening, valve 20 is opened to admit chlorine dioxide – or ozone – which will flow into, or otherwise diffuse into, the interior of each piece of mail and into interstices in the interior of the mail).

Regarding claim 25, Megerle teaches the method of claim 25, comprising filtering the flow of fluid to remove contaminates from the flow of fluid (See Specification, p. 4, [0052] – container 12 is selectively exhausted via first filter 22 and a second filter 24 through a selectively controlled valve 26. The valve 26 is connected to a scavenge vacuum pump 28 and to a scrubber 30 that removes the chlorine gas – or ozone).

Regarding claim 26, Megerle teaches the method of claim 26, comprising neutralizing ozone in the flow of fluid after adding ozone to the flow of fluid (See Specification, p. 3, [0050] – air may be removed to a scrubber to clean the air before its release; See Specification, p. 4, [0052] – scrubber 30 that removes the chlorine dioxide gas – or ozone, i.e. ozone is neutralized after ozone was added or generated to sterilize the contaminated air).

Regarding claim 28, Megerle teaches the method of claim 28, wherein moving the container comprises rotating the container (See Specification, p. 6, [0077] – mail is placed into the cage 90 and the cage is rotated).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 1744

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. Claims 5-8, 10-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Megerle [U.S. Patent Publication No. 2004/0024278] in view of Mize et. al. [U.S. Patent Publication No. 2003/0124025].

Regarding claims 5 and 10, Megerle teaches the article sanitation device of claim 5, wherein the container is rotatable by the motor to agitate an article to be sanitized inserted into the inner chamber (See Figure 4; See Specification, p. 6, [0077] – rotating cage 90 is mounted for rotation on an axle 108 which may be attached to a motor, and supports 110 hold the axle and allow it to rotate, agitating the mail article inserted into the inner chamber of rotating cage 90). Megerle fails to teach the article sanitation device of claims 5 and 10, further comprising a housing surrounding the container, wherein the housing at least partially defines a mailbox.

Megerle teaches that it is desirable to determine whether bio-hazardous materials, or chemical agents are contaminating items of mail, and if such contamination is present, neutralizing the mail in the same chamber where the contamination is sensed, preferably before the mail enters sorting and distribution centers (See Specification, p. 2, [0025 and 0027]. Mize et. al. teach a biologically safe mailbox, which protects the mail carrier and mail recipient from exposure to mail contaminated with biological agents, where the housing at least partially

defines a mailbox (See Figures 2, 3, and 5). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a housing surrounding the container of Megerle, defined in the shape of a mailbox, because then a determination of the presence of bio-hazardous materials, or chemical agents on or in the mail, could be ascertained within the mailbox where mail is deposited, preventing exposure of contamination to the mail carrier and/or mail recipient, as suggested in Megerle.

Regarding claim 6, Megerle teaches the article sanitation device of claim 6, wherein the container includes an access opening through which the article to be sanitized is insertable into the inner chamber (See Figure 1; See Specification, p. 3, [0047] – system 10 includes sealable container 12 having a[n] [inner] chamber designed to accept mail in a selected quantity, e.g. bulk mail, i.e. has an opening through which articles of mail to be sanitized are insertable into the inner chamber 11; See Specification, p. 6, [0077] – mail is placed into cage 90, i.e. includes an access opening through which mail to be sanitized is placed into the inner chamber of cage 90), the article sanitation device further comprising a lid movable to open and close the container (See Figure 1; See Specification, p. 3, [0047] – container 12 includes a lid or cover 14 that can be opened and closed as desired; the cover 14, when closed, forms a gas-tight closure).

Megerle fails to teach that the lid is coupled to the housing. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide for a lid or cover that was coupled to the housing, e.g. the mailbox, which is movable to open and close the container and the access opening covering the inner chamber of the container because it is well known for a conventional mailbox to comprise a lid or cover coupled to its housing for sealing the access opening – where mail is inserted – of the mailbox.

Art Unit: 1744

Regarding claim 7, Megerle fails to teach the article sanitation device of claim 7, wherein a portion of the duct extends through the lid when the container is closed. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a portion of the duct extending through the lid when the container lid is closed, allowing the generated ozone to flow from and through the duct through the lid, which creates a gas-tight closure around the access opening of the inner chamber when closed, and into the inner chamber of the container, e.g. rotating cage, for sterilizing the mail articles within.

Regarding claim 8, Megerle teaches the article sanitation device of claim 8, further comprising an outer chamber surrounding the inner chamber and defined between the container and the housing, wherein the duct extends through the outer chamber (See Figure 4; container 92 surrounding the inner chamber [defined within rotating cage 90] and defined between the rotating cage 90 and the housing, e.g. a conventional mailbox as taught by Megerle in view of Mize et. al., wherein the duct, defined by inlet duct 94 and outlet duct 96, extend through container 92).

Regarding claim 11, Megerle teaches an article sanitation device for destroying contaminants of and removing particulate matter from mail, the device comprising: an inner container defining an inner chamber having an inlet and an outlet (See Figure 4; See Specification, p. 6, [0077] and p. 3, [0050] – rotating cage 90 defining an inner chamber where contaminated mail is inserted and including an inlet and an outlet to allow an air flow across the mail to entrain particles in or on the mail articles); a fan operable to circulate fluid through the inner chamber (See Specification, p. 4, [0059] – a gas flow can be provided, such as by pump or fan to circulate the gas through the chamber 11 including through the mail containers until the bio-hazardous material has been neutralized); an ozone generator operable to provide ozone to the inner chamber to destroy contaminants (See Specification, p. 3, [0051] – gas generator 18

Art Unit: 1744

having a pressure gauge 19 is provided to generate or otherwise supply a quantity of gas that neutralizes hazardous material such as anthrax; See Specification, p. 2, [0030] – the chamber...is then filled with chlorine dioxide, ozone, or any of the other possible chemicals that will kill pathogens, but not harm mail or similar articles); and a filter element positioned to remove particulate matter from the inner chamber (See Specification, p. 4, [0052] – container 12 is selectively exhausted via first filter 22 and a second filter 24 through a selectively controlled valve 26. The valve 26 is connected to a scavenge vacuum pump 28 and to a scrubber 30 that removes the chlorine gas – or ozone).

Megerle fails to teach that the device is a mailbox. Mize et. al. teach the biologically safe mailbox described above for claims 5 and 10. It would have been obvious to one of ordinary skill in the art at the time the invention was made to define Megerle's device as a mailbox because then a determination of the presence of bio-hazardous materials, or chemical agents on or in the mail, could be ascertained within the mailbox where mail is deposited, preventing exposure of contamination to the mail carrier and/or mail recipient, as suggested in Megerle.

Regarding claim 12, Megerle teaches the mailbox of claim 12, comprising an outer container at least partially defining an outer chamber having an access opening, wherein the inner container is inside the outer container (See Figure 4; container 92 at least partially defining an outer chamber having an access opening, e.g. the area within container 92 including the opening where mail is insertable into container 92 and furthermore insertable within the inner chamber of rotating cage 90, wherein rotating cage 90 is inside container 92).

Regarding claim 13, Megerle teaches the mailbox of claim 13, wherein the inlet is located at the access opening (See Specification, p. 6, [0077] and p. 3, [0050] – the inlet of the inner chamber of rotating cage 90 provides the user with an access opening for inserting contaminated mail).

Art Unit: 1744

Regarding claim 14, Megerle teaches the mailbox of claim 14, wherein the inner container is rotatable with respect to the outer container to agitate the mail (See Specification, p. 6, [0077] – rotating cage 90 is rotatable with respect to container 92 for purposes of agitating the mail).

Regarding claim 15, Megerle teaches the mailbox of claim 15, comprising a duct communicating with the inlet and the outlet (See Figures 1 and 3; See Specification, p. 3, [0067] and [0070] – the container communicates with an air recirculation system, comprising air inlet duct 86 and air outlet duct 88 – defining a duct therebetween – communicating with the air inlet and air outlet of the inner chamber 11 of container 12, e.g. the rotating cage 90), wherein the ozone generator is coupled to the duct (See Figure 1; See Specification, p. 3, [0051] – gas generator 18 is coupled to the duct to generate or otherwise supply a quantity of gas that neutralizes hazardous material such as anthrax).

Regarding claim 16, Megerle teaches the mailbox of claim 16, wherein the filter element is in the duct downstream of the outlet (See Figure 1; See Specification, p. 4, [0052] – container 12 is selectively exhausted, e.g. downstream of outlet, via first filter 22 and a second filter 24 through a selectively controlled valve 26. The valve 26 is connected to a scavenge vacuum pump 28 and to a scrubber 30 that removes the chlorine gas – or ozone).

Regarding claim 17, Megerle teaches the mailbox of claim 17, comprising an ozone neutralizer coupled to the duct to remove ozone from the duct (See Specification, p. 3, [0050] – air may be removed to a scrubber to clean the air before its release; See Figures 1 and 3 & See Specification, p. 4, [0052] – scrubber 30, which removes the chlorine dioxide gas – or ozone, coupled to the duct to remove ozone from the duct).

Regarding claim 18, Megerle teaches a method for sanitizing mail, the method comprising: providing a device including an inner chamber and a selectively closable access

Art Unit: 1744

opening (See Figure 2; See Specification, p. 3, [0047] – the article sanitation device of Megerle including rotating cage 90 with an inner chamber defined within for receiving contaminated mail to be sterilized and a lid or cover 14 that can be selectively opened and closed as desired over the access opening in container 12, which when closed forms a gas-tight closure); inserting an article of mail into the inner chamber (See Figure 2; Load Mail, Step 44); closing the access opening (See Specification, p. 4, [0056] – container 12 is sealed closed); generating a flow of fluid including increased levels of ozone through the inner chamber upon closing of the access opening (See Figure 2; See Specification, p. 4, [0056] - air stream is provided to entrain particles which are in or on the mail into the air stream in step 40; See Specification, p. 4, [0056-0059] – upon closing of the access opening, valve 20 is opened to admit chlorine dioxide – or ozone – which will flow into, or otherwise diffuse into, the interior of each piece of mail and into interstices in the interior of the mail); filtering the flow of fluid to remove particulate matter from the flow of fluid (See Specification, p. 4, [0052] – container 12 is selectively exhausted via first filter 22 and a second filter 24 through a selectively controlled valve 26. The valve 26 is connected to a scavenge vacuum pump 28 and to a scrubber 30 that removes the chlorine gas – or ozone); and indicating the mail has been sanitized (See Specification, p. 4, [0059-61]).

Megerle fails to teach that the device is a mailbox. Mize et. al. teach the biologically safe mailbox described above for claims 5 and 10. It would have been obvious to one of ordinary skill in the art at the time the invention was made to define Megerle's device as a mailbox as described above for claim 11.

Regarding claim 19, Megerle teaches the method of claim 19, comprising removing the ozone from the flow of fluid (See Figure 2; See Specification, p. 6, [0052 and 0060-0061] – Unload Mail 58 and the ozone is removed by scrubber 30 prior to being exhausted to the ambient air).

7. Claims 9 and 20-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Megerle in view of Mize et. al., as applied to claims 5 and 18 above in paragraph 6, and further in view of Webb [U.S. Patent Publication No. 2004/0020978].

Megerle in view of Mize et. al. teach the article sanitation device as described above in paragraph 6. Megerle in view of Mize et. al. fail to teach the article sanitation device of claim 9, further comprising an indicator coupled to the housing, the indicator indicating a condition of sanitation of the article to be sanitized. Webb teaches a biologically safe mailbox, comprising an indicator coupled to the housing, the indicator indicating a condition of sanitation of the article to be sanitized (See Specification, p.1, [0011] – panel 32, providing an external interface, contains a manual start switch 34, manual stop switch 36, a delay time adjustment knob, a lamp 40, activated when the power is on, a lamp 42 to show the status of the system and a lamp 44 activated to show that the decontamination process is taking place, i.e. a condition of sanitation of the article to be sanitized). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Webb with the article sanitation device, as taught by Megerle in view of Mize et. al., because the indicator provided in Webb enables the user to determine the status of the sanitizing process, preventing under- or overexposure of the sterilant to the contaminated mail article(s).

Regarding claim 20, Megerle in view of Mize et. al. teach the method for sanitizing mail as described in paragraph 6 above. Megerle in view of Mize et. al. teach the method of claim 20, comprising removing the sanitized mail from the mailbox (See Figure 2; Unload Mail Step 58).

Megerle in view of Mize et. al. fail to teach receiving a signal that indicates the sanitized mail has been removed and disabling the mailbox in response to the signal, wherein disabling

Art Unit: 1744

the mailbox prevents the act of generating a flow of fluid upon a subsequent closing of the access opening. Webb teaches a biologically safe mailbox comprising a microcontroller 30, which is connected to fan 24, lamp 20, electromechanical lock 14, and sensors 16, 18, and 22 (See Specification, p. 1, [0011]). Webb further teaches that the controller determines the process time, e.g. a timer, and after that interval it switches off the lamp, e.g. stops generation of sterilant, and the fan and unlocks lock 14 (See Specification, p. 1, [0012]). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Megerle in view of Mize et. al. with Webb because Webb prevents the user from being exposed to sterilant, e.g. ozone in the case of Megerle, by switching off the lamp – ozone generator – and the fan prior to permitting user access to the container and the mail articles therewithin. Webb's mailbox provides a signal that indicates that the mail is sterilized, triggering the unlocking of the container and allowing removal of the sanitized mail. Webb further provides manual start switch 34, which prevents further generation of the fluid flow upon subsequent closing of the access opening.

Regarding claim 21, Megerle in view of Mize et. al. fail to teach the method of claim 21, comprising rotating the inner chamber upon closing of the access opening. Megerle in view of Mize et. al. teach rotating cage 90, defining an inner chamber for inserting contaminated mail, rotates to agitate the mail (See Figure 4; See Specification, p. 6, [0077] – rotating cage 90 is mounted for rotation on an axle 108 which may be attached to a motor, and supports 110 hold the axle and allow it to rotate, agitating the mail article inserted into the inner chamber of rotating cage 90). Webb teaches a door safety switch 16 and a process start switch 18, which are responsive to the opening and closing of door 12, i.e. the lamp and the fan are triggered on and off by the closing and opening of door 12 (See Specification, p.1, [0010]). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify

Art Unit: 1744

Megerle in view of Mize et. al. with the safety mechanism and automation of Webb because such a mechanism and automation prevents the user from being exposed to the sterilant, e.g. ultraviolet radiation or ozone. Coupling the activation of the sterilizing device, fan, and rotation of the container also allows the device to automatically operate in sterilizing the contaminated mail articles for a selected period of time empirically determined to neutralize the target bio-hazardous material (Megerle, See Specification, p. 4, [0059]) without requiring the user to monitor and/or adjust the operation of the device.

Regarding claim 22, Megerle in view of Mize et. al. fail to teach the method of claim 22, comprising: providing an electronic controlling including a timer; starting the timer upon closing the access opening; and stopping generation of the flow of fluid after a period of time is counted by the timer. Webb teaches that the controller determines the process time, e.g. a timer, and after that interval it switches off the lamp, e.g. stops generation of sterilant, and the fan and unlocks the lock 14 (See Specification, p. 1, [0012]). It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the timer and control of the sterilant production, as taught by Webb, into the sanitation mailbox of Megerle in view of Mize et. al. because such functionality would have allowed the user to expose the articles of mail to the ozone gas for a pre-selected period of time empirically determined to neutralize the target bio-hazardous material, as suggested by Megerle (See Specification, p. 4, [0059]).

Regarding claim 23, Megerle in view of Mize et. al. teach the method of claim 23, wherein the act of generating a flow of fluid includes introducing additional ozone in the flow of fluid (See Specification, p. 4, [0059] – repeating the generation of ozone as necessary to provide further treatment of the contaminated mail articles by introducing additional ozone gas sterilant into the air flow). Megerle in view of Mize et. al. fail to teach the method further comprising stopping the introduction of additional ozone prior to the counting of the period of

Art Unit: 1744

time by the timer. Webb teaches the controller, as defined above for claim 22, which determines the process time, e.g. a timer (See Specification, p. 1, [0012]). Webb further teaches that after the process time interval lapses, the controller switches off the lamp and the fan and unlocks lock 14. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide for the step of stopping the introduction of additional ozone prior to the counting of the period of time by the timer because the timer of Webb, in keeping track of the elapsed processing time, deactivates the mechanical devices associated with the sterilizing process, e.g. deactivation of the lamp, or in this case, the ozone generator. As the processing time approaches completion, it would have been obvious to stop the introduction of additional ozone into the flow of fluid, preventing the user from exposure to the harmful effects of the sterilant.

8. Claims 27 and 30-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Megerle in view of Webb.

Regarding claim 27, Megerle teaches the method for sanitizing mail as described in paragraph 5 above. Megerle teaches the method of claim 27, comprising removing the sanitized mail from the mailbox (See Figure 2; Unload Mail Step 58).

Megerle fails to teach indicating that a sanitizing process performed on the article has been completed; receiving a signal indicating that the sanitized article has been removed; and disabling future execution of the generating, moving, and adding steps in response to receiving the signal. Webb teaches a biologically safe mailbox comprising a microcontroller 30, which is connected to fan 24, lamp 20, electromechanical lock 14, and sensors 16, 18, and 22 (See Specification, p. 1, [0011]). Webb further teaches that the controller determines the process time, e.g. a timer, and after that interval it switches off the lamp, e.g. stops generation of

Art Unit: 1744

sterilant, and the fan and unlocks lock 14 (See Specification, p. 1, [0012] – indicating that a sanitizing process performed on the article has been completed). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Megerle with Webb because Webb prevents the user from being exposed to sterilant, e.g. ozone in the case of Megerle, by switching off and disabling the lamp – ozone generator – and the fan prior to permitting user access to the container and the mail articles therewithin. Providing for the operation of an additional mechanical device within the sanitizing device, e.g. the rotation of the cage, would have been an obvious modification in further automating the internal mechanical devices of Webb's mailbox with the opening and closing of door 12. Webb's mailbox provides a signal that indicates that the mail is sterilized, triggering the unlocking of the container and allowing removal of the sanitized mail. Webb further provides manual start switch 34, which prevents further generation of the fluid flow upon subsequent closing of the access opening.

Regarding claim 30, Megerle fails to teach the method of claim 30, comprising: providing an electronic controlling including a timer; starting the timer upon closing the access opening; and stopping generation of the flow of fluid after a period of time determined by the timer. Webb teaches that the controller determines the process time, e.g. a timer, and after that interval it switches off the lamp, e.g. stops generation of sterilant, and the fan and unlocks the lock 14 (See Specification, p. 1, [0012]). It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the timer and control of the sterilant production, as taught by Webb, into the sanitation mailbox of Megerle in view of Mize et. al. because such functionality would have allowed the user to expose the articles of mail to the ozone gas for a pre-selected period of time empirically determined to neutralize the target bio-hazardous material, as suggested by Megerle (See Specification, p. 4, [0059]).

Regarding claim 31, Megerle fails to teach the method of claim 31, comprising stopping adding of ozone to the flow of fluid prior to stopping generation of the flow of fluid. Webb teaches that the controller determines the process time, e.g. a timer, and after that interval it switches off the lamp, e.g. stops generation of sterilant, and the fan and unlocks the lock 14 (See Specification, p. 1, [0012]). Megerle teaches that upon completing the neutralization of the target bio-hazardous material, generation of ozone is ceased and the ozone is purged from the chamber and from the airflow (See Specification, p. 4, [0059-0060]). Subsequently, the airflow is ceased and ambient air is allowed to enter the chamber and effectively purge the container of the remaining remnants of sterilant and carrier airflow (See Specification, p. 4, [0060]). It would have been obvious to one of ordinary skill in the art at the time the invention was made to additionally stop the addition of ozone to the flow of fluid prior to stopping generation of the flow of fluid at the completion of the neutralization process, as controlled by the timer taught in Webb, because the airflow through the inner chamber and the duct serves as the carrier gas for the ozone through and across the contaminated mail articles. Upon completion of the neutralizing process, one would cease the addition of ozone to the airflow, followed by the stopping of generation of airflow prior to purging the chamber and the system of remaining remnants.

9. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Megerle in view of Yu et. al. [U.S Patent Publication No. 2003/0146027].

Megerle teaches the method as described above in paragraph 5. Megerle teaches driving the container with a motor, but fails to teach that the motor is connected to an electrical power supply. Megerle fails to further teach the steps of determining a power level of the electrical power supply; comparing the power level to a lower limit; and indicating when the

power level is below the lower limit. Yu et. al. teach a residual power indicator for a storage battery of an electric-powered vehicle, which comprises a processor unit 10. The processor unit 10 determines a power level of the storage battery 40, e.g. the electrical power supply, compares the power level to a reference value, e.g. the lower limit, corresponding to the residual power of the storage battery 40 stored in the memory device 11; and indicating when the power level is below the lower limit, e.g. displaying the actual residual power of the storage battery on the display unit 20 (See Specification, p. 1, [0014]). Yu et. al. teaches that their system provides an individual with the ability to accurately monitor current consumption of a power source (See Specification, p. 1, [0007]). It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of Yu et. al. into Megerle because mechanical devices, such as the motor, are commonly connected to and powered by electrical power supplies. It is well known that mechanical devices comprise monitors, which monitor the residual power stored in their associated power supply, i.e. a monitor monitoring the voltage left in a battery, as suggested by the device of Yu et. al. Accordingly, it would have been obvious to incorporate the indicator of Yu into Megerle to determine the power level of the power source for the motor rotating the cage in order to prevent insufficient power supplied to the rotating mechanism during the neutralization process.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brad Y. Chin whose telephone number is 571-272-2071. The examiner can normally be reached on Monday – Friday, 8:00 A.M. – 5:00 P.M.

Art Unit: 1744

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sun (John) Kim, can be reached at 571-272-1142. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

byc
April 12, 2005


ROBERT J. WARDEN, SR.
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700